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CONSULTING ENGINEERS
RADIO AND TELEVISION

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BY NEXT BUSINESS DAY

June 24, 1996

Mr. William F. Caton
Secretary
Federal Communications Commission
1919 M Street, NW
Washington, DC 20554

Dear Mr. Caton:

On behalf of Hammett & Edison, Inc., Consulting Engineers, enclosed are six copies of the our comments to Mass Media Bureau Docket 96-62 concerning blanketing interference are enclosed. The deadline for comments to this rule making is June 25, 1996, so these comments are timely filed.

Sincerely,

William F. Hammett

aa

Enclosures (6)

cc: Mr. Kenneth J. Brown (1) BY NEXT BUSINESS DAY
Christopher D. Imlay, Esq. (1) BY NEXT BUSINESS DAY

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Comments of Hammett & Edison, Inc.

MM Docket 96-62
Blanketing Interference

June 24, 1996

HAMMETT & EDISON, INC.
CONSULTING ENGINEERS
SAN FRANCISCO

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Parts 73 of	)	MM Docket No. 96-62
the Commission's Rules to More	)	
Effectively Resolve Broadcast	)	
Blanketing Interference, Including	)	
Interference to Consumer Electronics and	)	
Other Communications Devices	)	

To: The Commission

Comments of Hammett & Edison, Inc.

The firm of Hammett & Edison, Inc., Consulting Engineers, respectfully submits these comments in the above-captioned proceeding relating to broadcast blanketing interference. Hammett & Edison, Inc. is a professional service organization that provides consultation to commercial and governmental clients on communications, radio, television, and related engineering matters.

I. Qualifications of Hammett & Edison, Inc.

1. Hammett & Edison, Inc. is well qualified to make comments on this matter. Hammett & Edison has been in the practice of providing consulting engineering services to the broadcast industry for over 40 years. On behalf of AM, FM, and TV clients, Hammett & Edison has undertaken the task of remedying interference to consumer electronic equipment, including RF and non-RF devices.

II. AM Blanketing Contour

2. The Commission has established the 1 V/m contour as the blanketing contour for AM stations and has asked for comments whether this is reasonable. Our experience has shown that this contour level is appropriate for defining the "blanketing" contour. Likewise, we find the Commission's proposal to calculate the 1 V/m blanketing contour on the basis of inverse distance and near field calculations reasonable, since the area concerned is usually close to the array in relation to the aperture of a typical antenna. This method of calculation is more accurate than simply assuming that the pattern has been formed at such a close distance.

III. FM and TV Blanketing Contour

3. The Commission has proposed extending the concept of a 115 dBu (0.562 V/m) blanketing contour to include TV stations. We find no technical justification for doing so. Using the formula proposed in the NPRM, the blanketing contour for a 100 kW FM or low band VHF TV station would extend 3.94 km, the blanketing contour for a 316 kW high band VHF TV station would extend 7.00 km, and the blanketing contour for a 5,010 kW UHF TV station would extend 27.9 km. We find it difficult to believe that there could be any possibility of blanketing interference 27 km from any broadcast station. This distance could easily include a station's entire city of license and beyond. Also, while predicting the distance to a contour a few kilometers away from the transmitter using inverse distance would be consistent with FCC contour prediction methods, using inverse distance to calculate the location of a contour that extends 27 km is clearly in conflict with existing FCC propagation algorithms.

4. We propose that the blanketing area be calculated on the basis of the formula as proposed by the Commission, but with a maximum distance specified. We specifically suggest that the distance to the blanketing contour be specified as that calculated by the proposed formula, or 3 kilometers, whichever is less. This would still allow stations to show a blanketing contour based on power, but would prevent unreasonable distances being calculated for the blanketing contour of high-power UHF TV stations, against which few interference complaints are filed to begin with. The reason for this is that high-power UHF TV stations invariably achieve their power using antennas with gains of 30 to 50; this results in narrow elevation plane half-power beamwidths, typically on the order to 2 to 3 degrees. Thus, the high powers of UHF TV stations are radiated towards the horizon; in the vicinity of the transmitter, that is, at steep depression angles, these high-gain UHF antennas typically radiate less than 1% of their main-beam power.

IV. Time Period of Responsibility

5. The Commission has sought comment on whether the broadcasters' responsibility for remedying blanketing interference should extend beyond the specified one-year period in cases of new devices or technologies. We agree that broadcasters should remedy any claims of blanketing interference when new construction or changes in the transmission facility have occurred that may cause the interference. We oppose such an extension of responsibility to include new devices that are introduced after the one-year time period has elapsed. New technologies must take into account the fact that the RF environment in which a device may

be used is not benign. The Commission has routinely upheld the concept that the "newcomer" must remedy any new interference. Once the broadcast station has established its facilities and cured the interference that it may have caused, it should not be responsible for curing new interference caused by the introduction of a new electronic device into the blanketing area.

6. The Commission has also sought comment on whether the one year time period should not apply in the case of transient housing. We disagree with this proposed extension of broadcasters' responsibility. As stated above, we believe that a broadcaster has the obligation to remedy any disruption to others living in the immediate vicinity. However, once the broadcast station has established its operation, individuals have a choice on where to live and they are not required to take up residence near a broadcast station. Too many times, broadcasters have been forced to relocate because of residential encroachment in the vicinity of the station and subsequent complaints of interference to consumer electronic devices used by the residents of these encroaching properties. It is unfair to penalize a broadcast station for situations that are clearly not under its control.

V. Telephone Interference

7. The Commission has asked for comments on whether telephone interference should be added to the list of types of interference to be resolved by broadcasters. We agree that resolving telephone interference complaints should be required of broadcasters, but if, and only if, mandatory standards for RF susceptibility are established for telephones. The Commission's own report has identified that the cause of most interference lies with the design of the telephone and that telephones can be manufactured to be resistant to RF interference. Requiring broadcasters to remedy telephone interference to telephones without implementing mandatory standards for RF susceptibility only encourages shoddy design practices in the interest of reducing cost, since manufacturers will be able to count on broadcasters shouldering the financial burden for retrofitting such telephones. Once reasonable mandatory standards are established, we see no reason why telephones manufactured to the standard should not be included in the list of devices protected from interference within the blanketing contour. To begin this process, and as mentioned in the current NPRM, we respectfully request that the Commission initiate a Rule Making proceeding to establish RF susceptibility standards for telephones. Such a proceeding would be in the best interest of the Commission, broadcasters and consumers, as it would reduce the number of interference complaints and require all manufacturers to meet reasonable

minimum susceptibility standards. Additionally, it would be in the best interest of manufacturers of consumer electronics since, apart from fewer consumer complaints, equipment meeting appropriate standards for immunity may be sold into non-U.S. markets, and sales might therefore increase.

VI. Time of Response

8. The Commission has requested comment on whether maximum times for response to interference complaints originating from within the blanketing contour should be established, and whether a log of all interference complaints should be kept. We believe that it is in the public interest to establish response times for interference complaints. We agree with the Commission's suggestion that 10 days is a reasonable amount of time for an initial response to an interference complaint. We disagree that a time limit should be set on the final resolution, however. We have been involved in numerous interference resolution cases. Due to the number of complaints, the difficulty in resolving stubborn cases, the time lag in ordering and receiving specialized components, or the difficulty in gaining access to the affected equipment, the proposed 30-day time limit for interference complaint resolution is not reasonable, especially for a station that has just begun operation and may be swamped with many complaints. We suggest that the Commission instead establish a 30-day limit as the time in which the broadcast station must have at least attempted a good faith resolution. If the complaint is not settled in that amount of time, the broadcaster should be required to provide a letter to the complainant explaining the delay and providing an estimate of the time required to resolve the complaint.

9. We oppose the requirement for a log of all interference complaints. We believe that the above-suggested time requirements would make a log unnecessary, as the complainant should have a record of when they first contacted the station and would presumably provide that information to the Commission, if Commission intervention became necessary. Additionally, the Commission has been removing almost all logging requirements, and we see the creation of a new logging requirement a step backward from the progress made to date.

VII. Summary

10. Hammett & Edison supports in concept the Commission's proposal to amend the blanketing interference rules We have suggested several changes that we believe will better achieve the desired result of fewer interference complaints and swifter resolution to those that do occur. We believe that the cornerstone to reducing interference complaints is the establishment of a standard for RF susceptibility for telephones, and we urge the Commission to begin such a proceeding.

Respectfully submitted,

By _____
William F. Hammett, P.E.
President

By _____
Gerhard J. Straub, P.E.
Senior Engineer

June 24, 1996

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